(Certified translation from German)

A perspiration pad

Field of the invention

The invention relates to a perspiration pad for insertion into the armpit with an absorbent pad consisting of two mutually bendable sections and a self-adhesive sheet projecting beyond the edge of the pad.

Description of the prior art

For absorbing perspiration in the armpit it is known (US Pat No. 2,818,572) to adhere an underarm absorbent pad to the skin of the armpit. The absorbent pad comprises a self-adhesive sheet which projects beyond the edge of an absorbent pad consisting of two mutually bendable sections. In order to facilitate the bending of the absorbent pad, the pad is provided on the one hand with a two-part and overlapping configuration in the bending region and on the other hand the self-adhesive sheet is provided with a configuration that does not project in the region of the pad. Since the pad does not rest completely on the skin due to the overlapping pad parts, the perspiration originating there cannot be absorbed by the absorbent pad, as a result of which perspiration will accumulate at these locations and a comparatively strong perspiration odor will arise. An additional fact is that the perspiration will only be absorbed by the ambient pad sections, thus preventing an even reduction in the suction effect of the pad and thus reducing the wearing period of the absorbent pad. An especially disadvantageous aspect in these kinds of absorbent pads is, however, that the tensile stress occurring in the bending region are transmitted via the self-adhesive sheet onto the skin, causing a distortion of the absorbent pad on the skin. Since the armpit contains a comparatively large number of nerve cells and hair-forming cells, such distortion is perceived as very painful, thus strongly limiting the comfort of the absorbent pad.

A perspiration pad is further known from US Pat No. 2,669,710 which consists of a pad and a backing projecting from the pad. Backing and pad are joined through several adhesive strips which are further also used for adhering the perspiration pad to the skin. Although it is possible to reduce the tensile stress arising in the bending region with this perspiration pad, it cannot prevent that tensile stress between the two pad parts of the

perspiration pad which are separated by the axillary arch are transmitted, so that such perspiration pads are not suitable for the armpit.

Summary of the invention

The invention is thus based on the object of providing a perspiration pad of the kind mentioned above in such a way that no tensions occur in the skin when wearing the perspiration pad, but that complete application of the perspiration pad on the skin is ensured.

This object is achieved by the invention in such a way that the self-adhesive sheet is interrupted at least in the bending region of the two sections of the pad.

If the perspiration pad does not have a self-adhesive sheet in the bending region, the tensile stress produced by bending the perspiration pad is absorbed by the pad. It merely needs to be ensured during the application of the perspiration pad that the region which is free of the adhesive sheet rests on the axillary arch. A transmission of the tensile stress onto the self-adhesive sheet is prevented by the elasticity of the pad, thus considerably improving the wearing comfort of the perspiration pad. The provision of a continuous pad ensures a complete application on the skin in an advantageous manner, so that perspiration is absorbed immediately by the pad and therefore no odors can be produced.

If the perspiration pad comprises at least one curved bending line in the bending region it is possible to improve the bending properties of the perspiration pad and the wearing comfort. Especially in the case of newly inserted perspiration pads a bending is thus already predetermined which is adjusted to the axillary arch, as a result of which bulging in the bending region can be prevented.

If the self-adhesive sheet is placed in the form of boundary strips on the edges of the pad sections, the elasticity of the pad will not be influenced by the self-adhesive sheet, which thus improves the application of the pad on the skin. Moreover, tensile stress which arises between the boundary strips of the self-adhesive sheet are absorbed by the pad and are not transmitted onto the skin, which thus increases the wearing comfort.

In order to prevent the emergence of perspiration from the perspiration pad, the pad can be covered on the side averted from the skin in a liquid-tight manner both between the boundary strips of the self-adhesive sheet as well as in the bending region. To ensure that the skin is not cut off from air supply, the cover of the pad is gas-permeable. If this cover is further slightly expansible, the wearing comfort of the perspiration pad is not impaired.

In order to ensure the elasticity of the pad which is required for absorbing the tensile stress, the pad can preferably be made of an elastic, deformable and/or soft material and be provided with a single-layer and multi-layer configuration. The elasticity can be improved even further by embedding expansion strips in the pad. It is understood that both the pad as well as the self-adhesive sheet must consist of a skin-friendly material. In order to counteract perspiration odor, the pad can be laced with a perfuming agent and/or with odor-suppressing preparations. Aluminum chlorate has proven its worth for reducing perspiration, which can also be embedded in the pad.

If the perspiration pad is provided with a trapezoid configuration then this opens up the possibility of providing differently large pad sections according to the number of sweat glands in the axillary arch. It is thus possible to provide the pad section above the axillary arch which is of smaller surface area and, as is already known, has a tapering in the direction of the upper arm, and to ensure a high absorbent effect of the larger part below the axillary arch. It can thus further be prevented that the perspiration pad projects from the armpit and thus will become visible when worn.

The welding of the self-adhesive sheet with the pad in the boundary region of the pad ensures that both the resistance against tensile stress is increased as well as the need for material for the self-adhesive sheet is reduced, because the comparatively large area of overlap of pad and self-adhesive sheet which is required for a tenacious adhesive connection is reduced.

Brief description of the drawings

The subject matter of the invention is shown in the drawings by way of example, wherein:

Fig. 1 shows the perspiration pad in accordance with the invention in a top view, and

Fig. 2 shows a sectional view along line A-A of fig. 1 on an enlarged scale.

According to the illustrated embodiment, the perspiration pad 1 comprises an absorbent pad 2 (fig. 1) which consists of two mutually bendable sections. A self-adhesive sheet 3 projects beyond the edge of the pad 2, which sheet is interrupted at least in the bending region of the two sections of pad 2. Further interruptions at the corners of the perspiration pad have proven to be advantageous, which is merely indicated in fig. 1. The perspiration pad 1 is provided with a trapezoid configuration in order to thus correspond to the shape of the armpit.

The provision of at least one curved bending line 4 in the bending region of pad 2 which can be produced by notches in the pad material it is ensured that the bending of the perspiration pad 1 is facilitated and that the perspiration pad 1 rests against the armpit in a respective manner. In order to ensure that this application is improved even further, several bending lines 4 are provided which differ in their curvature and bending lines 4 on both sections of the pad.

In order to improve the extensibility of the mutually bendable pad sections, the self-adhesive sheet 3 is applied in the form of boundary strips to the edges of the pad sections. The boundary strips are applied with the adhesive-containing sides in an overlapping manner to the edges of the pad sections for the purpose of a sufficiently tough connection, which occurs on the side of the pad which is averted from the skin. Furthermore, the outer edge of the self-adhesive sheet 3 forms in the bending region a circular arch 5 approaching the pad, so that any unrolling of the self-adhesive sheet 3 while being worn is prevented.

A backing 6 which is applied both between the boundary strips of the self-adhesive sheet 3 as well as in the bending region on the side of the pad 2 which is averted from the skin prevents the escape of the perspiration absorbed by the pad 2. It allows the entrance of gas however so that the skin is not hindered in its breathing.

In order to reduce sweating, a strip 7 laced with aluminum chlorate is inserted in the longitudinal direction of pad 2.